

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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COUNTRY	Hungary	REPORT	
SUBJECT	The Power Plant at the Stalin Works at Sztalinváros	DATE DISTR.	27 January 1954
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1. The Stalin Works at Sztalinváros will be served by a special power plant. In addition, Sztalinváros will be connected with the national power grid. The new power plant will consist of a generator driven by three 21,000 kw. bleeder-type turbines.
2. Steam of 40 atmospheric pressure will be produced at the rate of 50 tons per hour by six boilers of Hungarian make. It is planned, however, to build additional boilers of 100 tons-per-hour capacity in the course of the expansion of the power plant at a later date. The boilers will fire three kinds of fuel, namely, coal, metallurgical gases, and chamber gases. These fuels can also be used mixed in various proportions.
3. The coal will consist of the left-overs of Pécs and Komló coals to be used for coking for the metallurgical furnaces. The metallurgical gases will be by-products of the blast furnace, and the chamber gases will be obtained from coking.
4. Since these three kinds of fuel will be used in varying proportions, it was necessary to build a regulating installation to assure steam production at a uniform rate. The steam feed is regulated by altering the pressure in the main steam pipe. Coal is added to the gasses at a rate which will insure capacity operation of the boilers.
5. Water is fed to the boilers from the Danube. The mud and other floating impurities are first precipitated by aluminum sulfate, and subsequently the water is filtered through quartz gravel and treated with slaked lime. The resulting water, which has a hardness of 0.1 degree, is then subjected to a double evaporation and, finally, the gases are extracted from it at 2.5 atmospheric pressure.

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6. The ash and slag which remain in the boilers are removed by large quantities of water conducted into a precipitating basin. The power plant is provided with four 80 m. high smokestacks, each having an interior diameter of 2.5 m.
7. In connection with the power plant, an installation which will provide the city with central heating has also been built. This installation is equipped with a small, counter-pressure, bleeder-type turbine. The counter-pressure is 1.35 atmospheric, and the condenser is replaced by a heat exchanger which heats the circulating water to a temperature of 90 degrees centigrade.
8. The turbine is also equipped with a bleeder of 1.9 atmospheric pressure, which is capable of increasing the temperature of the circulating water to 105 degrees centigrade. According to calculations, hot water of 105 degrees centigrade can satisfy the heating requirements, even at an outside temperature of 5 degrees centigrade below zero.
9. Since the temperature in Hungary often falls below — 5 degrees centigrade for a few weeks during the winter, a third heat exchanger has been built into the heating system. It will use, during the short period of its operation, fresh steam of 9 atmospheric pressure and will raise the temperature of the water circulating in the central heating system to 130 degrees centigrade. The pipes of the heating system will have 8 atmospheric pressure for the heating of the city and $5\frac{1}{2}$ atmospheric pressure for the heating of the metallurgical works.
10. The first machine unit of the power plant was connected with the national power grid on 24 July 1953. This unit is currently being run on test operations and supplies, temporarily, 6,000 kw. of energy to the national grid. After the completion of the tests, the output will be gradually increased until it reaches the planned capacity.

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